

ABSTRACT

The present invention is a deposition system for the production of coated substrates that provides a first deposition process that subsequently feeds a second deposition process and where the two deposition processes are occurring concurrently. The consecutive deposition system includes two dynamically isolated deposition chambers. The substrate is helically wrapped about a cooling block within the first deposition chamber such that the tape is exposed to a deposition zone a number of times sufficient to correspond to the desired film thickness. A shielding element may be included in the second deposition chamber to limit the size of the second chamber deposition zone and thus the film thickness of the second coating layer.